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MY EXPERIENCE WITH THE HILLEGAS SCALE

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If the supervisor in English uses the Hillegas scale or some similar scale, he can supervise more intelligently the work of his teachers. No longer need he rely on vague opinions. He feels that he has his work well in hand. He knows with reasonable

TABLE I

ENGLISH II		ENGLISH II		ENGLISH III		ENGLISH III	
Theme Number	Rating	Theme Number	Rating	Theme Number	Rating	Theme Number	Rating
1.....	772	15.....	585	1.....	772	15.....	838
2.....	772	16.....	474	2.....	838	16.....	474
3.....	772	17.....	474	3.....	838	17.....	838
4.....	675	18.....	474	4.....	838	18.....	772
5.....	474	19.....	585	5.....	772	19.....	772
6.....	772	20.....	675	6.....	838	20.....	838
7.....	675	21.....	772	7.....	838	21.....	838
8.....	675	22.....	585	8.....	838	22.....	838
9.....	474	23.....	585	9.....	772	23.....	838
10.....	838	24.....	772	10.....	772	24.....	772
11.....	474	25.....	474	11.....	772	25.....	838
12.....	838	26.....	772	12.....	838		
13.....	675	27.....	772	13.....	838		
14.....	675	28.....	838	14.....	772		

ENGLISH II

Rating	Number of Themes
474	7
585	4
675	6
772	8
838	3
Median, 675	

ENGLISH III

Rating	Number of Themes
474	1
772	9
838	15
Median, 818	

accuracy the quality and progress of the theme work of the pupils under his supervision; he knows that it is possible to maintain in his school standards for promotion that shall be reasonably free

from mere "individual idiosyncrasy, not to mention temporary mood or caprice."

The supervisor may collect sets of themes at the beginning of the term and grade them. In the middle of the term, before it

TABLE II

THEME NUMBER	MISS A		MISS B		MR. GUNTHER		DIFFERENCE BETWEEN THE TWO MARKS		
	Oct., 1917	Dec., 1917	Oct., 1917	Dec., 1917	Oct., 1917	Dec., 1917	A	B	G
1.....	93	80	80	78	75	80	13	2	5
2.....	80	75	60	69	65	70	5	9	5
3.....	80	85	62	80	75	80	5	18	5
4.....	86	90	58	82	75	80	4	24	5
5.....	73	75	54	74	85	85	2	20	0
6.....	60	40	50	50	75	80	20	0	5
7.....	80	85	70	60	75	80	5	10	5
8.....	86	85	61	62	80	70	1	1	10
9.....	80	85	85	70	85	85	5	15	0
10.....	66	70	48	47	85	80	4	1	5
11.....	41	48	40	47	45	45	7	7	0
12.....	80	80	58	78	85	75	0	20	10
13.....	80	82	67	70	80	80	2	3	0
14.....	60	75	48	68	75	85	15	20	10
15.....	73	84	52	60	65	70	11	8	5
16.....	80	90	62	82	75	70	10	20	5
17.....	93	78	48	84	80	75	15	36	5
18.....	73	90	50	70	70	70	17	20	0
19.....	73	82	55	84	75	80	9	29	5
20.....	66	75	58	60	45	55	9	2	10
21.....	66	80	47	70	75	75	14	23	0
22.....	73	78	42	55	65	60	5	13	5
23.....	40	48	47	48	45	50	8	1	5
24.....	86	82	68	78	75	80	4	10	5
25.....	86	75	58	77	65	65	11	19	0
26.....	73	78	70	76	75	80	5	6	5
27.....	80	80	70	85	75	70	0	15	5
28.....	66	80	60	70	80	70	14	10	10
29.....	80	90	60	80	85	80	10	20	5
30.....	73	75	60	78	70	78	2	18	8
31.....	66	80	61	85	75	85	14	24	10
32.....	80	85	60	70	80	70	5	10	10
33.....	53	72	50	64	70	64	19	14	6
34.....	86	85	58	84	75	84	1	26	9
35.....	73	70	56	70	75	70	3	14	5

is too late, another set may be called for and graded. By comparing the first set with the second, improvement or lack of improvement may be noted with reasonable accuracy. The amount of improvement by years can also be discovered. For example, in October, 1917, I called for sets of themes. Among them was a

set from a second-year high-school English class and a set from a third-year high-school English class. After grading them by the Hillegas scale I had the results as indicated in Table I.

The third-year class, as can be seen by the foregoing figures, showed a considerable advancement over the second-year class. The former, with twenty-five students, had fifteen themes with quality 838, while the latter with more students, twenty-eight, had three. The median of English III was 838, while the median of English II was 675. So I feel confident that English III did better work.

TABLE III
DISTRIBUTION TABLES AND GRAPHS OF THE DIFFERENCES, WITH THE MEDIANS

Miss A		Miss B		Mr. GUNTHER	
Differences	Frequencies	Differences	Frequencies	Differences	Frequencies
0-4	11	0-4	7	0-4	7
5-9	11	5-9	4	5-9	21
10-14	8	10-14	7	10-14	7
15-19	4	15-19	5	15-19	0
20-24	1	20-24	9	20-24	0
25-29	0	25-29	2	25-29	0
30-34	0	30-34	0	30-34	0
35-39	0	35-39	1	35-39	0
Median 5-9 per cent		Median 10-14 per cent		Median 5-9 per cent	

That percentage marks ought not to be taken too seriously is shown by the following experiment. Two teachers from Poughkeepsie High School and I graded a set of thirty-five first-year English compositions last October. Two months later I asked the same teachers to grade the same papers (the first marks having been removed in the meantime). The result is given in Table II.

These differences in per cent ratings are really greater than they seem. The range of marks is not 0-100 but 40-93 in the case of Miss A, 40-85 in the case of Miss B, and 45-85 in the case of Mr. Gunther. In case of Miss A the median difference in the two ratings was 5-9 per cent; in the case of Miss B, 10-14 per cent; in the case of Mr. Gunther, 5-9 per cent. If Miss A varies from 5 to 9 per cent in a range of 53 points, she would vary about twice as much in a range of 0-100. So naturally would the others.

In the October, 1917, trial none of the medians were the same; in the December, 1917, trial none of the medians were the same.

TABLE IV
PER CENT MARKS OCTOBER, 1917

Miss A		Miss B		MR. GUNTHER	
Grades	Frequencies	Grades	Frequencies	Grades	Frequencies
40-44	2	40-44	2	40-44	0
45-49	0	45-49	5	45-49	3
50-54	1	50-54	6	50-54	0
55-59	0	55-59	7	55-59	0
60-64	2	60-64	9	60-64	0
65-69	5	65-69	1	65-69	4
70-74	8	70-74	3	70-74	3
75-79	0	75-79	0	75-79	15
80-84	10	80-84	1	80-84	5
85-89	5	85-89	1	85-89	5
90-94	2	90-94	0	90-94	0
95-99	0	95-99	0	95-99	0
Median 70-74		Median 55-59		Median 75-79	

TABLE V
PER CENT MARKS DECEMBER, 1917

Miss A		Miss B		MR. GUNTHER	
Grades	Frequencies	Grades	Frequencies	Grades	Frequencies
40-44	1	40-44	0	40-44	0
45-49	2	45-49	3	45-49	1
50-54	0	50-54	1	50-54	1
55-59	0	55-59	1	55-59	1
60-64	0	60-64	5	60-64	2
65-69	0	65-69	2	65-69	1
70-74	3	70-74	8	70-74	9
75-79	9	75-79	6	75-79	4
80-84	10	80-84	7	80-84	12
85-89	6	85-89	2	85-89	4
90-94	4	90-94	0	90-94	0
95-99	0	95-99	0	95-99	0
Median 80-84		Median 70-74		Median 75-79	

It can also be seen that in the case of Miss A twenty-four of her second marks are higher than her first marks; thirty of Miss B's second marks are higher than her first marks; in the case

of Mr. Gunther this is true in sixteen cases. What are the reasons for this? Here is a probable explanation: Miss B was in better physical condition the second time, as she herself stated. In the case of all three teachers the first reading was during the rush of school time; the second was during the Christmas vacation. This had its effect on the marks. The physical condition of the examiner certainly has its effect on the ratings given themes.

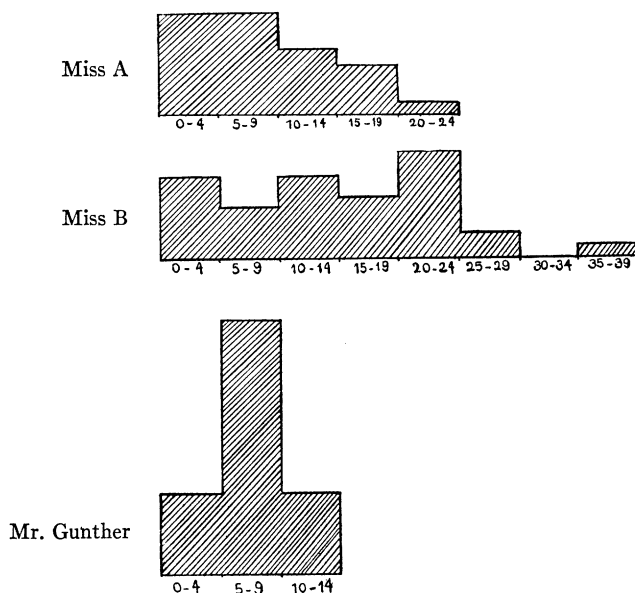


FIG. 1.—Graph of difference in the two marks

Miss A is regarded by the students as an easier marker than the other teachers in her department. Her median, 80-84, proves that the students are right in their estimate. She is the only one who marked any of these thirty-five themes above 90 per cent. This partly explains why her classes are overcrowded when the students elect their English teacher at the beginning of the term. This variation in marking a principal must guard against.

Several months afterward Mr. E. D. Hewes, supervising principal of Cobleskill High School, very kindly consented to help me grade these same thirty-five themes by means of the Hillegas scale. The result is given in Table VI.

In case of Mr. Gunther, seven marks were higher the second time, one was lower, and twenty-seven were the same. The median of the first rating was 474; of the second, 474.

In the case of Mr. Hewes, two marks were higher, eight were lower, and twenty-five were the same. The median of his first marks was 474; of his second, 474. The two judges were able to agree on twelve themes in the four trials. It would seem then that the Hillegas scale produced the more even rating. Mr. Gunther has never met Mr. Hewes, has never worked in the same school system with him. On the other hand, Miss A, Miss B, and Mr. Gunther have worked together for five years, have met for conferences, have tried to adopt a percentage scale that would do away with as much variability in their ratings as possible. Yet the Gunther-Hewes ratings with the Hillegas scale were more uniform than the Gunther-A-B ratings with the percentage scale.

Let us examine the ratings more carefully. Let us compare the grades assigned to theme 1 with the grades assigned to theme 14. Miss A marked theme 1, 93 per cent and theme 14, 60 per cent. Miss B marked theme 1, 80 per cent and theme 14, 48 per cent. With the Hillegas scale the two judges judged both to be equal in value. If we take themes 8 and 19, we find that with the Hillegas scale the two judges marked them each time equal in value, 474. But with the per cent scale Miss A marked theme 8, 86 per cent and 85 per cent, and theme 19, 73 per cent and 82 per cent. Miss B marked theme 8, 61 per cent and 62 per cent, and theme 19, 55 per cent and 84 per cent. Mr. Gunther marked theme 8, 80 per cent and 70 per cent, and theme 19, 75 per cent and 80 per cent. The variations in the marking with the use of the percentage scale in this case are marked. Here a principal would have something tangible to talk about in his private conference with his teacher. His supervision would be intelligent. Why did Miss B mark theme 8 so low as 61 per cent? Why did Miss A mark theme 8 so high as 86 per cent? Very likely as a result of such a conference these two teachers would be less radical in their future markings.

Going back to the second point of this study, we see that by examining a set of themes that have been marked by a teacher a principal can soon determine by means of the Hillegas scale whether

the teacher is a careful marker or not. The rating of themes is a matter which cannot be detected by the principal in his visit to the classroom; yet this is very important. A student ought to have just as much chance to pass with one teacher as with another.

TABLE VI

THEME NUMBER	MR. GUNTHER		MR. HEWES	
	April, 1918	June, 1918	April, 1918	June, 1918
1.....	474	474	474	474
2.....	369	369	369	369
3.....	585	675	585	585
4.....	474	585	474	369
5.....	585	585	474	474
6.....	369	369	474	369
7.....	585	585	474	474
8.....	474	474	474	474
9.....	675	585	369	369
10.....	585	675	585	585
11.....	585	585	585	474
12.....	585	585	474	474
13.....	585	675	585	474
14.....	474	474	474	474
15.....	474	474	474	474
16.....	772	772	474	474
17.....	474	474	585	474
18.....	585	585	585	585
19.....	474	474	474	474
20.....	369	474	585	585
21.....	474	585	474	474
22.....	474	474	474	474
23.....	369	369	474	369
24.....	585	474	585	585
25.....	474	474	474	474
26.....	585	585	474	585
27.....	585	585	585	474
28.....	474	585	369	369
29.....	585	585	585	585
30.....	474	474	474	585
31.....	474	474	369	369
32.....	474	474	474	474
33.....	369	369	369	369
34.....	474	474	474	369
35.....	369	474	369	369

Under the percentage system he apparently has not; under the Hillegas system his chances would be better. With a passing mark of 75 per cent the student who wrote theme 1 would get honors with Miss A while the one who wrote theme 14 would fail. Both themes were, in the judgment of the two examiners using the Hillegas scale,

equal in value. In October, 1917, under Miss B the students writing themes 3, 4, 12, 17, 24, 29, and 34 would have failed, whereas they would have passed if they had had either of the other teachers. That is, 20 per cent of Miss B's class would have been held back one-half year at Poughkeepsie High School if the promotion examinations had been held in October, 1917; whereas if they had had the other teachers they would have passed.

In summing up, I find that with the Hillegas scale or some similar scale an experienced English teacher may arrive at the quality and progress of the theme work of students with reasonable accuracy, that with the Hillegas scale or some similar scale it will be possible to maintain more even standards for promotion which will be reasonably free from temporary moods or caprices, and lastly, that with the Hillegas scale the ratings given by a group of experienced English teachers to a set of pupils' papers will be more uniform than those given when the per cent scale is used.